

PATENT CLAIMS

1. A method to improve the filterability of the first fine-grained waste material generated in a metallurgical industry, **characterized in that** before filtration at least one other fine-grained waste material is added to the first waste material, which has a particle size that is either larger than the particle size of the first waste material, and/or that the particle shape clearly differs from that of the first waste material, and/or that its surface charge is of the opposite sign to the first waste material, and that the materials remain stable in the same kind of conditions.
2. A method according to claim 1, **characterized in that** the first waste material is an iron precipitate generated during the fabrication of zinc.
3. A method according to claim 1 or 2, **characterized in that** the first waste material is jarosite precipitate.
4. A method according to claim 1 or 2, **characterized in that** the first waste material is goethite precipitate.
5. A method according to claim 1 or 2, **characterized in that** the first waste material is hematite precipitate.
6. A method according to one of the above claims 1 – 5, **characterized in that** the second waste material is gypsum precipitate.
7. A method according to one of the above claims 1 – 6, **characterized in that** the amount of the second waste material to be added is 5 – 50 % of the amount of the first.

8. A method according to one of the above claims 2 – 6, **characterized in that** the amount of second waste material to be added is 10 – 30 % of the amount of the first.
9. A method according to one of the above claims 1 – 5, **characterized in that** the particle size of the first waste material is in the region of less than 30 µm.
10. A method according to one of the above claims 1 or 6 – 9, **characterized in that** the particle size of the second waste material to be added is at least twice as large as the particle size of the first waste material.
11. A method according to claim 1, **characterized in that** the first waste material is hydroxide precipitate.
12. A method according to claim 1 and 11, **characterized in that** the second waste material is gypsum precipitate.
13. A method according to claim 1, **characterized in that** the particle shape of one waste material is spherical and the other needle-shaped.